

Page 17, lines 8-21:

E2
Reactor tube was an Inconel reactor tube having an inner diameter of 19 mm, where a catalyst bed was fixed at the center of the reactor tube and had an Inconel thermowell for a thermo couple, 3 mm in outer diameter, inside the catalyst bed. Decomposition product gas discharged from the catalyst bed was bubbled through an aqueous sodium hydroxide solution and then discharged as an exhaust gas. C_2F_6 decomposition rate was calculated by the following equation by determining concentration of C_2F_6 in the reaction gas at the inlet to the reactor tube and concentration of C_2F_6 in the decomposition gas at the outlet from the alkaline washing step by FID (flame ionization detector) gas chromatography and TCD (thermal conductivity detector) gas chromatography:

Page 29, lines 20-27:

E3
The reactor tube was an Inconel reactor tube having an inner diameter of 32 mm and had a catalyst bed fixed at the center of the reactor tube. An Inconel thermowell for a thermocouple, 3 mm in diameter, was inserted into the catalyst bed. Decomposition product gas from the catalyst bed was bubbled through an aqueous calcium hydroxide solution and discharged to the system outside.

Page 34, lines 21-27:

E4
Test results of the foregoing catalysts 19 and 26 - 36 at a reaction temperature of 700°C are shown in Fig. 6, C_2F_6 decomposition activity is highest with the Al_2O_3 - ZnO_2 catalyst and is lowered in the order of the Al_2O_3 -NiO catalyst, and the Al_2O_3 - TiO_2 catalyst. The highest activity of catalyst 27 seems to be due to the effect of S.

Page 40, lines 2-12:

Example 10

E5
In this Example, influences of steam upon C_2F_6 decomposition were investigated under the same test conditions as in Example 6 except that the

E5
space velocity was changed to 1,000 h⁻¹. Al₂O₃-NiO catalyst 28-3 was used at a reaction temperature of 700°C while supplying steam for 2 hours from the start of test, then interrupting supply of steam for 3 hours, and then starting to supply steam again. Test results are shown in Fig. 10. It was found that during the supply of steam the C₂F₆ reaction rate was elevated due to the occurrence of C₂F₆ hydrolysis.

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Example 11

E6
In this Example, decomposition of SF₆ was investigated with Al₂O₃-NiO catalyst 28-3 under the same test conditions as in Example 6 except that a SF₆ gas having a purity of 99% or more was used, the space velocity was changed to 1,000 h⁻¹ and the SF₆ gas was diluted with nitrogen instead of air. The reaction temperature was 700°C. Concentration of SF₆ in the reaction gas at the inlet to the reactor tube and concentration of SF₆ in the decomposition gas at the outlet from the alkaline washing step were determined by TCD gas chromatography and the decomposition rate was calculated by the following equation. It was found that the decomposition rate was 99% or more.

IN THE CLAIMS:

Please cancel Claims 24-31, without prejudice to or disclaimer of the subject matter therein.

Please add new Claims 32-74 as follows:

E7
32. (NEW) A process for treating a gas, comprising:
contacting a gas stream containing at least one compound consisting of (a) carbon and fluorine, (b) carbon, hydrogen, and fluorine, (c) carbon, hydrogen, fluorine, and oxygen, (d) SF₆, and (e) NF₃, with a catalyst at a temperature of